Adopt Tra 502 previously effective 1-25-96 (Doc. # 6172 and expired 1-25-04, to read as follows:

PART Tra 502 STATE HIGHWAY AID

Tra 502.01 <u>Purpose</u>. The purpose of this part is to implement the process authorized by RSA 235:14 to provide state highway aid to municipalities in New Hampshire.

Tra 502.02 Definitions.

- (a) "American Association of State Highway and Transportation Officials" (AASHTO) means the "American Association of State Highway and Transportation Officials," a nonprofit, nonpartisan association headquartered in Washington, D.C.
 - (b) "Bureau" means the bureau of planning and community assistance of the department.
- (c) "Construction cost" means all costs incurred to cover labor, materials, and equipment, including overhead and profit necessary to construct a project.
- (d) "Construction engineering cost" means all costs associated with administering and overseeing the construction of a project.
 - (e) "Construction provider" means a:
 - (1) Contractor who supplies labor or materials, or both, for a project under the terms of a contract; or
 - (2) Supplier of materials for a project under the terms of a contract.
- (f) "Design cost" means all costs incurred from initiation of design and review under Tra 502.09 or Tra 502.10 until the time of the award of a construction contract in accordance with Tra 502.12(a) or (b).
- (g) "Miscellaneous costs" means costs other than construction, construction engineering, or design costs, incurred in the production of contract plans and proposals, advertisement for bids, permit fees and acquisition of property rights associated with right-of-way needs, including, but not limited to, appraisals, land damages, deed preparation, and recording fees, deemed reimbursable and reasonable by the department.
- (h) "Municipality" means a town, city, or unincorporated place in New Hampshire. The term does not include a village district.
- (i) "Project" means a conceptual study or design, or both, and construction or reconstruction of a highway that has been agreed to by a municipality and the department, provided that, if the department or the municipality determines, after the conceptual study or design, or both, that the construction of the highway is not feasible at that time, the conceptual study or design, or both, shall constitute the project.

Tra 502.03 State Highway Aid; Project Process Summary.

- (a) A municipality may apply to the department for aid to construct or reconstruct a class I, II, or III highway(s), as described in RSA 229:5, I-III.
 - (b) The following is a summary of the process for a project:

- (1) A municipality shall make a request for project, as provided in Tra 502.05(a);
- (2) The department shall examine the project site, as provided in Tra 502.05(c);
- (3) If the department requires a conceptual study as provided in Tra 502.06(a), either the department or the municipality shall conduct a conceptual study.
- (4) If the project is eligible for state highway aid, the bureau shall provide the municipality with a preliminary estimate of the project cost, as provided in Tra 502.06(b);
- (5) The municipality shall make an application for state highway aid for a project as provided in Tra 502.07:
- (6) For a municipally-managed project, the municipality shall provide an engineering study, preliminary plans, and final plans to the department for review and approval, as provided in Tra 502.09;
- (7) For a department-managed project, the department shall provide the municipality with preliminary plans and final plans for review and comment from the municipality, as provided in Tra 502.10;
- (8) After the contract(s) is awarded:
 - a. A municipally-managed project shall be administered by the municipality, as provided in Tra 502.12(b); and
 - b. A department-managed project shall be administered by the department, as provided in Tra 502.12(a); and
- (9) State highway aid payments shall be made as provided in Tra 502.13.

Tra 502.04. Highway Project Design Criteria.

- (a) Highway projects constructed with state highway aid shall be designed in accordance with the following design standards and manuals:
 - (1) AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 4th Edition (2001) and 2003 revisions;
 - (2) AASHTO Policy on Geometric Design of Highways and Streets (2004, 5th Edition);
 - (3) Federal Highway Administration Manual on Uniform Traffic Control Devices, as adopted by the commissioner as a policy for traffic control standards;
 - (4) AASHTO Roadside Design Guide, 3rd Edition (2002);
 - (5) New Hampshire Department of Transportation (NHDOT) Standard Specifications for Road and Bridge Construction, 2002 Edition; and
 - (6) New Hampshire Department of Transportation (NHDOT) Highway Design Manual (1999).

- (b) Upon written application of a municipality, the department shall waive any of the minimum design standards relating to municipal highways affected by the project:
 - (1) Unless it determines that the requested waiver, if granted, would result in an imminent and substantial threat to human health, public safety, or the environment; and
 - (2) If the municipality has accepted, in writing, responsibility for construction that does not meet the waived minimum design standards.

Tra 502.05 Request for Project.

(a) A municipality seeking state highway aid shall make a request for project by providing the information required in (b) below in written form, delivered by mail or by hand to:

New Hampshire Department of Transportation Bureau of Planning and Community Assistance Attn: Municipal Highway Engineer John O. Morton Building 7 Hazen Drive Concord NH 03301

- (b) A request for project shall:
 - (1) Require the following information:
 - a. The name of the municipality;
 - b. The name and location of the highway on which the desired project site is located; and
 - c. The anticipated construction work involved; and
 - (2) Be signed by:
 - (1) For a city, the mayor or the city manager;
 - (2) For a town, the town manager or a majority of the members of the board of selectmen; and
 - (3) For an unincorporated place, a majority of the county commissioners.
- (c) After receipt of a request for project, the department shall conduct an examination of the project site. The bureau shall send a written response to the municipality containing the following information:
 - (1) The name of the municipality;
 - (2) Whether or not the requested project would be eligible for state highway aid; and
 - (3) If eligible for state highway aid:
 - a. The estimated total project cost;

- b. The amount of state aid funds to be applied to the project;
- c. The amount of the municipality's matching funds as required under RSA 235:15; and
- d. Instructions to submit an application for construction.

Tra 502.06 Conceptual Study; Preliminary Estimate of Costs.

- (a) The department shall require a conceptual study to be conducted by the department or the municipality, if the department determines that the proposed project:
 - (1) Is too complex for a cost estimate without a conceptual study; or
 - (2) Includes unknown factors that would be part of the cost estimate.
- (b) Based upon the design criteria specified in Tra 502.04(a), the bureau shall provide a preliminary estimate of the cost of the project to the applicant municipality, including the following information:
 - (1) The approximate scope and limit of work;
 - (2) The estimated total project cost; and
 - (3) The municipality's estimated share of the cost.

Tra 502.07 Application for State Highway Aid; Enrollment of Projects.

- (a) If the department determines that a project is eligible for state highway aid, the municipality shall follow the application process described in this section.
- (b) After a municipality has raised, appropriated, or set aside funds for a project requested under Tra 502.05, the municipality shall provide the following information to the bureau, by filing the form entitled "Application for State Highway Aid" or by providing the information required in the form in writing, delivered by mail or by hand to:

New Hampshire Department of Transportation Bureau of Planning and Community Assistance John O. Morton Building 7 Hazen Drive Concord NH 03301

- (c) The form entitled "Application for State Highway Aid" shall require the following information:
 - (1) The name of the municipality;
 - (2) The date of the application for state highway aid;
 - (3) The name and location of the highway on which the project site is located; and
 - (4) A certification that the municipality has:
 - a. Raised or appropriated its share of the cost of the project;

- b. Raised or appropriated sufficient funds to advance the design of the project; or
- c. Included the project in its capital improvements program (CIP), if the municipality utilizes a CIP process as authorized pursuant to RSA 674:5.
- (d) If the application is from:
 - (1) A city, the application shall be signed by the mayor or the city manager;
 - (2) A town, the application shall be signed by the town manager or by a majority of the members of the board of selectmen; and
 - (3) An unincorporated place, the application shall be signed by a majority of the county commissioners.
- (e) The bureau shall process applications for state highway aid funding in the order received.
- (f) The department shall enroll projects in the state highway aid program on the basis of:
 - (1) Projected availability of funds;
 - (2) Anticipated design schedule;
 - (3) Condition of the existing highway; and
 - (4) Any other factor affecting human health, public safety, or the environment, including, but not limited to:
 - 1. Motorist inconvenience;
 - 2. Emergency service access; and
 - 3. The need for emergency repairs.

Tra 502.08 Review of the Municipal Consultant and Construction Provider Selection Process.

- (a) Prior to the engagement of any consultant or construction provider, the municipality shall provide the bureau a description of the process to be utilized for selection of consultants and construction providers, so that the bureau can advise the municipality if any:
 - (1) Consultant selection process is not in compliance with RSA 21-I:22;
 - (2) Contract process or provision would make a proposed cost or fee ineligible for reimbursement with state highway aid because the municipality did not use a competitive bidding process; and
 - (3) Proposed costs or fees are not eligible for reimbursement with state highway aid.
- (b) Except as provided in (c) below and Tra 502.09, the bureau shall waive review of the selection process for a consultant, if the municipality:

- (1) Desires to use the same consultant engaged in a recently-completed state highway aid project;
- (2) Desires to use the same design firm it engaged in a recently-completed state highway aid project complying with RSA 21-I:22;
- (3) Has in place a contract for services, reached through a process complying with RSA 21-I:22, provided:
 - 1. The contract is for general municipal services that include highway design capability; and
 - 2. The consultant is listed by the department as provided in Tra 502.09(a).
- (c) The bureau shall review the consultant and construction provider selection process of a municipality, if the bureau determines that the complexity of the project requires the review.

Tra 502.09 Design and Review; Municipally-Managed Projects.

- (a) Design of a municipally-managed project may be performed by a consultant, provided the consultant is qualified under RSA 21-I:22 and listed by the department in accordance with the qualifications-based selection procedures provided in the New Hampshire Department of Transportation Consultant Selection and Service Agreement Procedures (1999).
- (b) Unless the department determines that the scope of work does not justify the effort, a municipality shall provide an engineering study, preliminary plans, and final plans for each proposed project to the department for review.
 - (c) The engineering study shall contain the following elements:
 - (1) A description of existing conditions, including:
 - a. Geometry and cross section of the existing highway;
 - b. Alignment of any intersections on the highway; and
 - c. Any significant geometric or topographical conditions;
 - (2) A list of the relevant design criteria and manuals to be used.
 - (3) A description of the methodology and reasoning used to develop alternative alignments or treatments for the proposed highway improvement, including:
 - a. Horizontal and vertical curves;
 - b. Travel way and shoulder widths;
 - c. Effects upon environmentally sensitive areas, such as wetlands;
 - d. Effects upon utilities;
 - e. Effects upon any existing structures;

- f. Effects upon private property; and
- g. The recommendation of the responsible professional engineer as to which alternative alignment or treatment should be advanced;
- (4) The number and content of any boring logs taken, if deemed necessary by the responsible professional engineer, to present a reasonably accurate picture of subsurface conditions at the site;
- (5) A description of the drainage issues and methodology of addressing the drainage issues present at the site;
- (6) An itemized cost estimate for the proposed highway construction or reconstruction, consistent with the standard specifications, item names, and definitions published in the New Hampshire Department of Transportation Standard Specifications for Road and Bridge Construction (2002);
- (7) A description of the environmental resources that may be affected by each of the alternatives considered, including:
 - a. Natural resources protected by state or federal environmental protection laws; and
 - b. Cultural, historical, social, and economic resources protected by state or federal laws; and
- (8) A description of meeting(s) held with the New Hampshire division of historical resources in order to identify potential historical or archeological concerns that should be investigated to determine the possible impact of the project on cultural resources.
- (d) The preliminary plans shall contain the following elements:
 - (1) A front sheet with location map and layout;
 - (2) A typical section of improvement;
 - (3) General construction plans, including pavement marking, drainage, and utility relocations;
 - (4) A signalization plan, if needed;
 - (5) Documentation of the drainage design;
 - (6) Erosion control measures;
 - (7) Right-of-way acquisition plan sheets;
 - (8) Profiles of all roadways affected by the project;
 - (9) Boring locations and logs, if available;
 - (10) A description and implementation plan for work and traffic control;
 - (11) Cross-sections of the project; and

- (12) Any other condition that, in the opinion of the presenting engineer, is worthy of note to the reviewing engineer.
- (e) The department shall review the engineering study and preliminary plans. Following receipt of the department's comments on the engineering study and preliminary plans, the municipality shall submit final design plans and an updated cost estimate to the department for review and approval. After approval of the final design plans and cost estimate by the department, the municipality shall prepare contract plans, specifications, and a contract proposal.
- (f) Contract plans, specifications, and proposals shall bear the licensed professional engineer stamp of the professional engineer who prepared the plans and contract proposal, or under whose direct supervisory authority the plans and contract proposal were prepared.

Tra 502.10 Design and Review; Department-Managed Projects.

- (a) When the department prepares the design for a project, the preliminary plans shall be reviewed by the municipality in which the project is to be located. The municipality may submit written comments regarding the preliminary plans to the bureau.
- (b) After receipt of written comments, if any, from the municipality under (a) above, the department shall submit final design plans to the municipality for its review and approval.
- Tra 502.11 <u>Processing of Applications; Enrollment of Projects</u>. The bureau shall process applications for state highway aid in order of receipt. The bureau shall enroll projects based on availability of state aid highway funds.

Tra 502.12 Contract Award and Administration.

- (a) Department-managed projects shall be awarded to the lowest responsible bidder in a competitive bidding process conducted in accordance with RSA 228:4 and RSA 228:4-a. A department-managed project shall be administered by the department.
- (b) A municipally-managed project shall be performed by a construction provider, under the following conditions:
 - (1) The construction provider was selected as the lowest responsible bidder in a competitive bidding process;
 - (2) The municipality has submitted a tabulation of the bids received in the competitive bidding process to the department; and
 - (3) The department has concurred in the contract award.
- (c) During construction, the work shall be inspected by the department as necessary to insure conformity with the approved plans and specifications.

Tra 502.13 Payment of State Highway Aid Funds.

(a) Except as otherwise provided pursuant to RSA 235:21, state highway aid shall be 2/3 of the actual amount of the costs incurred on a:

- (1) Conceptual study for the construction or reconstruction of a highway; or
- (2) Project to construct or reconstruct a highway.
- (b) A project cost claimed by a consultant, contractor, or municipality shall not be eligible for state highway aid if the cost is:
 - (1) Not specifically identified in a written contract for services or materials, except as modified by a change order or extra work order approved by the department;
 - (2) In excess of the usual and customary billing rate in the industry; or
 - (3) Unrelated to the project.
- (c) If the department conducts a conceptual study for a project, the municipality shall remit to the state 50 percent of its 1/3 of its share of the estimated cost of the conceptual study before the study is begun. The municipality shall remit the balance of its share upon completion of the study.
 - (d) If the project is a municipally-managed project:
 - (1) The department shall reimburse the municipality 2/3 of the cost for design of a project upon the review and approval of:
 - a. Finalized plans and specifications;
 - b. Copies of invoices for services, if the project is designed by a consultant; and
 - c. An invoice for staff-related charges, if designed by the municipality;
 - (2) The department shall reimburse the municipality 50 percent of the state's 2/3 share of the construction cost of a project upon notice that the municipality has:
 - a. Begun work on the project a force account basis; or
 - b. Awarded the contract to the lowest responsible bidder;
 - (3) The department shall reimburse the municipality 2/3 of the construction engineering cost and miscellaneous costs of a project upon the review and approval of:
 - a. Copies of invoices or proof of payment for services, if the project services were provided by a consultant;
 - b. An invoice for staff-related charges or charges for material and equipment utilized in the project, if the project services were provided by the municipality; and
 - c. Invoices of all construction services providers; and
 - (4) The department shall reimburse the municipality the balance of the 2/3 share of the final project construction cost upon:

- a. Inspection, showing the work to be complete and performed in conformance with the requirements of the approved final plans and specifications; and
- b. Submission of one set of reproducible as-built plans of the project to the department.
- (e) If the project is a department-managed project, the municipality shall remit to the state 50 percent of its 1/3 share of the project cost for which it is receiving state highway aid prior to the start of construction. The municipality shall remit the balance of its 1/3 share of the final cost of the project upon completion of the project.

Tra 502.14 Consultant Evaluation.

- (a) Any contracted consultant or engineering services provider on a project funded with state highway aid shall be evaluated by the entity administering the contract under which the services were provided.
 - (b) The evaluation shall require the following information:
 - (1) The municipality in which the project took place;
 - (2) The date of the evaluation;
 - (3) The project name;
 - (4) A verbal description of the project;
 - (5) The name of the project manager;
 - (6) Name of the consultant being evaluated;
 - (7) Address of the consultant;
 - (8) Name of consultant's lead person;
 - (9) Type of work provided by the consultant;
 - (10) Information on whether the consultant requested or was required to file for extra work, and, if extra work was required, a brief explanation of the extra work;
 - (11) The names of any of the consultant's employees whose performance was outstanding and their contribution; and
 - (12) The names of any of the consultant's employees whose work was below expectations and in what way the work was below expectation.
- (c) The administering entity shall evaluate consultant based organization and management services as to whether the quality of the services was above expectations, meets expectations, or was below expectations. Any evaluation of below expectations shall include comments explaining the reason for the evaluation. The following service areas shall be evaluated:
 - (1) Technical capability of personnel;

(2) Adequacy of supervision of personnel;
(3) Communication and cooperation with the contract administrator;
(4) Performance and workmanship;
(5) Invoicing;
(6) Administration of subconsultants; and
(7) Ability to anticipate and resolve technical or design issues.
(d) The administering entity shall evaluate design services as to whether the quality of the services was above expectations, meets expectations, or was below expectations, taking into account completeness, timeliness, accuracy, and ability to anticipate and resolve design issues. The following design service areas shall be evaluated, and an opportunity for comments shall be provided in each area:
(1) Support for environmental processes;
(2) Conceptual alternatives;
(3) The engineering study;
(4) Support of public participation;
(5) Preliminary plans;
(6) Final plans;
(7) Bid and contracting phase; and
(8) Construction.
(e) The evaluation shall provide an opportunity for the consultant to respond or comment upon any of the areas of the evaluation.
(f) Each consultant evaluation shall be dated and signed by:
(1) The municipal project manager;
(2) The chairman of the board of selectmen or the town or city manager, as applicable;
(3) The consultant's project manager; and
(4) The principal consultant.
Tra 502.15 Contractor Evaluation.
(a) Any contractor responsible for the actual construction work of a project funded with state highway aid shall be evaluated by the entity administering the contract under which the services were provided.

(b) The evaluation shall require the following information:
(1) The contractor's name;
(2) The contractor's address;
(3) The date of the evaluation;
(4) The name of the contract administrator;
(5) The project name;
(6) The project number;
(7) A type of project, including:
a. Road;
b. Signals; or
d. Other, with an explanation;
(8) The original contract amount;
(9) Contract completion date;
(10) Project start date;
(11) Project completion date;
(12) Extension date granted, if any;
(13) The amount the final cost was over or under the original contract amount.
(c) The evaluation shall include a question if the contract was not completed on time because of the contractor's performance. If the response to the question is "yes," the evaluation shall provide a space for description of the reason(s) for the failure to complete the contract on time.
(d) Construction services shall be evaluated as to whether the quality of the services was above expectations, meets expectations, or was below expectations. The following construction service areas shall be evaluated, and an opportunity for comments shall be provided in each area:
(1) Quality of the work;
(2) Public relations;
(3) Organization and personnel;
(4) Contract compliance;

(5) Equipment used, including whether the:

- a. Equipment provided was sufficient in amount to perform the work; and
- b. Condition of the equipment used was sufficient to perform the work;
- (6) Quality of the supervision of the work;
- (7) Cooperation with the contract administrator;
- (8) Payment of accounts; and
- (9) Performance of subcontractors.
- (e) Each construction evaluation shall be dated and signed by:
 - (1) The individual(s) who oversaw the construction in the field;
 - (2) The consultant's project manager; and
 - (3) The chairman of the board of selectmen or the town or city manager, as applicable.